

**1. General information****Course:** THE NATURAL ENVIRONMENT I: TEACHING PHYSICS AND CHEMISTRY**Code:** 46323**Type:** CORE COURSE**ECTS credits:** 6**Degree:** 308 - BACHELOR'S DEGREE IN PRIMARY EDUCATION (TO)**Academic year:** 2020-21**Center:** 104 - FACULTY OF EDUCATION OF TOLEDO**Group(s):** 40 41**Year:** 3**Duration:** C2**Main language:** Spanish**Second language:** English**Use of additional languages:****English Friendly:** Y**Web site:****Bilingual:** N**Lecturer:** GABRIEL RODRIGUEZ RODRIGUEZ - Group(s): 40 41

Building/Office	Department	Phone number	Email	Office hours
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2. Pre-Requisites

Not established

3. Justification in the curriculum, relation to other subjects and to the profession

Not established

4. Degree competences achieved in this course**Course competences**

Code	Description
CB01	Prove that they have acquired and understood knowledge in a subject area that derives from general secondary education and is appropriate to a level based on advanced course books, and includes updated and cutting-edge aspects of their field of knowledge.
CG09	Effectively deal with language learning in multicultural and plurilingual contexts. Encourage pupils to read and critically assess texts from different scientific and cultural domains within the school curriculum.

5. Objectives or Learning Outcomes**Course learning outcomes****Description**

Interpret the physicochemical phenomena that surround us in such a way to facilitate their future work as teachers.

Manage operations of physical quantities, units, and conversion systems.

Plan strategies for developing learning activities in the fields of Physics and Chemistry.

Assimilate the language and terminology of Physics and Chemistry, which would allow students to understand the main theoretical and practical paradigms of these experimental sciences.

Solve questions, exercises and problems related to the principles, laws and most important physicochemical theories.

Additional outcomes**6. Units / Contents****Unit 1:**

Unit 1.1

Unit 1.2

Unit 2:

Unit 2.1

Unit 2.2

Unit 2.3

Unit 2.4

Unit 2.5

Unit 2.6

Unit 3:

Unit 3.1

Unit 3.2

Unit 4:

Unit 4.1

Unit 4.2

Unit 4.3

Unit 5:

Unit 5.1

Unit 5.2

Unit 6:

Unit 7:

Unit 8:

7. Activities, Units/Modules and Methodology							
Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Lectures	CB01 CG09	0.96	24	N	-	
Problem solving and/or case studies [ON-SITE]	Problem solving and exercises	CB01 CG09	0.64	16	N	-	
Writing of reports or projects [OFF-SITE]	Cooperative / Collaborative Learning	CB01 CG09	1.4	35	Y	Y	
Writing of reports or projects [OFF-SITE]	Cooperative / Collaborative Learning	CB01 CG09	0.8	20	Y	N	
Problem solving and/or case studies [ON-SITE]	Practical or hands-on activities	CB01 CG09	0.64	16	Y	N	
Study and Exam Preparation [OFF-SITE]	Self-study	CG09	1.4	35	N	-	
Final test [ON-SITE]	Assessment tests	CB01 CG09	0.16	4	Y	Y	
Total:			6	150			
Total credits of in-class work: 2.4			Total class time hours: 60				
Total credits of out of class work: 3.6			Total hours of out of class work: 90				

As: Assessable training activity

Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System			
Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Assessment of active participation	15.00%	0.00%	
Progress Tests	25.00%	25.00%	
Assessment of problem solving and/or case studies	15.00%	15.00%	
Progress Tests	25.00%	50.00%	
Assessment of problem solving and/or case studies	10.00%	0.00%	
Assessment of problem solving and/or case studies	10.00%	10.00%	
Total:	100.00%	100.00%	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject, an ordinary and an extraordinary one (evaluating 100% of the competences).

9. Assignments, course calendar and important dates	
Not related to the syllabus/contents	
Hours	hours
Writing of reports or projects [AUTÓNOMA][Cooperative / Collaborative Learning]	35
Writing of reports or projects [AUTÓNOMA][Cooperative / Collaborative Learning]	20
Study and Exam Preparation [AUTÓNOMA][Self-study]	35
Final test [PRESENCIAL][Assessment tests]	4
Unit 1 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	1
Unit 2 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	8
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	1
Problem solving and/or case studies [PRESENCIAL][Practical or hands-on activities]	4
Unit 3 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	3
Problem solving and/or case studies [PRESENCIAL][Practical or hands-on activities]	1
Unit 4 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	6
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	4
Problem solving and/or case studies [PRESENCIAL][Practical or hands-on activities]	4
Unit 5 (de 8):	
Activities	Hours

Class Attendance (theory) [PRESENCIAL][Lectures]	2
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Problem solving and/or case studies [PRESENCIAL][Practical or hands-on activities]	2
Unit 6 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Problem solving and/or case studies [PRESENCIAL][Practical or hands-on activities]	2
Unit 7 (de 8):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	3
Problem solving and/or case studies [PRESENCIAL][Practical or hands-on activities]	2
Unit 8 (de 8):	
Activities	Hours
Problem solving and/or case studies [PRESENCIAL][Practical or hands-on activities]	1
Global activity	
Activities	hours
Problem solving and/or case studies [PRESENCIAL][Practical or hands-on activities]	16
Class Attendance (theory) [PRESENCIAL][Lectures]	24
Writing of reports or projects [AUTÓNOMA][Cooperative / Collaborative Learning]	35
Writing of reports or projects [AUTÓNOMA][Cooperative / Collaborative Learning]	20
Final test [PRESENCIAL][Assessment tests]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	35
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	16
Total horas: 150	

10. Bibliography and Sources						
Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Isabel Pilar Gallardo	Física y Química , 2 tomos 3º ESO y 4º ESO	Oxford Educación Instituto Nacional de Tecnologías Educativas y de Formación del Profesorado del Ministerio de Educación, Cultura y Deporte.			2010	Centro para la innovación y el desarrollo de la educación a distania.
Jesús M. Muñoz Calle Luis Ramírez Vicente Joaquín Recio Miñarro José Luis San Emeterio Peña Inmaculada Sevilla Pascual José Villasuso Gato	4º ESO Física y Química	http://recursostic.educacion.es/secundaria/edad/4esofisicaquimica/				
Jesús M. Muñoz Calle Luis Ramírez Vicente Joaquín Recio Miñarro Carlos Palacios Gómez Mª Josefa Grima Rojas Javier Soriano Falcó Enric Ripoll Mira José Luis san Emeterio Peña	3º ESO Física y Química	http://recursostic.educacion.es/secundaria/edad/3esofisicaquimica/			2010	Centro para la innovación y el desarrollo de la educación a distania.
Moreno Gómez, E.	Enseñanza de la Ciencia en el aula	CSIC		978-84-00-09299-3	2014	Los contenidos son los mismos y se utilizarán COMO SOPORTE AUXILIAR/REFERENCIA, no como libro de texto Para la preparación de los trabajos grupales, se recomiendan libros de Bachillerato o de primeros cursos de carrera como Tipler, Serway...
	CUALQUIER par de libros de Física y Química de 3º y 4º de ESO					